

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P241573

Luminaire Tested: **FVS8M-3-LD4-30-2LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241573
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-30-2LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH OPAL LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

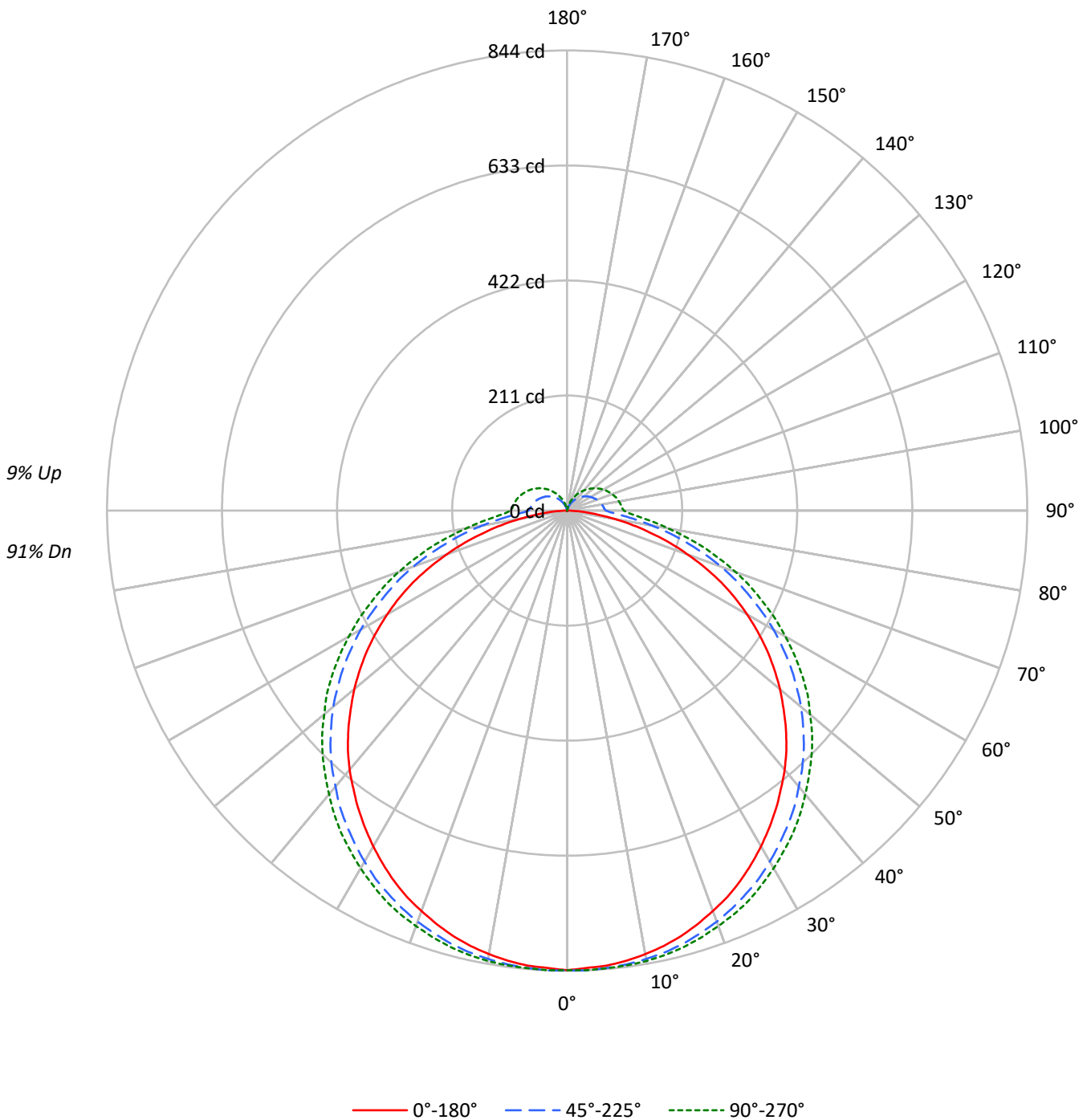
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2968.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 40.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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CATALOG NUMBER: FVS8M-3-LD4-30-2LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241573

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	106	101	96	92	102	97	93	89	92	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	70	67	64	61
3	87	76	67	61	84	74	66	59	69	63	57	65	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	61	54	48	58	52	47	55	50	45	43
5	73	60	50	43	70	58	49	43	55	47	42	52	45	40	49	44	39	37
6	67	53	44	38	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4923	4923	4923
5°	4888	4852	4843
10°	4854	4787	4783
15°	4817	4724	4723
20°	4767	4653	4655
25°	4722	4581	4598
30°	4658	4504	4519
35°	4596	4420	4445
40°	4537	4328	4354
45°	4459	4240	4273
50°	4363	4127	4163
55°	4249	3986	4049
60°	4090	3815	3883
65°	3880	3585	3686
70°	3521	3330	3463
75°	3022	2955	3164
80°	2294	2511	2784
85°	1265	2061	2470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	2.7
10°-20°	231.6	7.8
20°-30°	356.2	12.0
30°-40°	438.7	14.8
40°-50°	469.0	15.8
50°-60°	441.9	14.9
60°-70°	358.6	12.1
70°-80°	232.1	7.8
80°-90°	106.0	3.6
90°-100°	65.5	2.2
100°-110°	58.1	2.0
110°-120°	47.9	1.6
120°-130°	36.3	1.2
130°-140°	24.6	0.8
140°-150°	14.0	0.5
150°-160°	6.0	0.2
160°-170°	1.4	0.0
170°-180°	0.0	0.0
0°-30°	667.9	22.5
0°-40°	1106.5	37.3
0°-60°	2017.5	68.0
0°-90°	2714.1	91.4
90°-120°	171.5	5.8
90°-150°	246.5	8.3
90°-180°	254.0	8.6
0°-180°	2968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	838	839	842	843	842	80
15°	808	813	822	827	828	228
25°	750	760	776	784	789	346
35°	668	685	705	718	722	418
45°	568	589	614	628	634	438
55°	448	472	501	519	526	400
65°	312	337	368	390	396	307
75°	160	191	227	248	258	169
85°	30	62	100	124	132	37
90°	1	33	71	96	104	2
95°	1	30	67	92	100	0
105°	1	27	62	85	93	0
115°	1	23	54	75	82	1
125°	1	18	45	64	70	1
135°	1	13	35	51	56	0
145°	1	7	24	37	40	0
155°	1	3	13	22	24	0
165°	1	1	4	7	9	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241573

CATALOG NUMBER: FVS8M-3-LD4-30-2LO-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1
2.5°	839.5	840.1	840.1	840.1	840.7	841.3	841.9	843.1	843.7	844.3	844.3
5°	837.6	837.6	837.6	837.6	838.2	838.8	840.1	840.7	841.3	841.9	841.9
7.5°	832.7	833.4	833.4	833.4	834.0	834.6	835.2	837.0	838.2	838.8	839.5
10°	826.0	827.2	827.2	827.2	827.9	829.1	829.7	831.5	833.4	834.6	835.2
12.5°	818.1	818.1	818.7	818.7	820.5	821.1	823.0	825.4	826.6	828.5	829.7
15°	807.7	808.3	808.3	808.9	811.4	812.6	813.8	816.2	819.3	820.5	822.4
17.5°	795.5	796.1	797.3	797.9	800.4	802.2	803.4	806.5	809.5	811.4	812.6
20°	781.4	782.6	783.3	785.1	788.1	790.0	791.2	794.9	797.9	799.7	802.2
22.5°	767.4	767.4	768.6	771.0	774.1	776.5	778.4	781.4	785.1	786.9	790.0
25°	750.3	750.3	752.1	755.1	758.2	760.0	761.9	766.1	770.4	773.5	775.9
27.5°	731.3	731.9	734.4	737.4	741.1	744.2	745.4	750.3	753.9	758.2	761.3
30°	711.2	713.0	715.4	718.5	723.4	725.8	728.3	732.5	736.8	741.1	743.5
32.5°	689.8	691.0	695.3	698.3	703.2	706.3	708.7	713.6	717.9	721.5	724.6
35°	667.8	669.0	672.7	676.9	682.4	684.9	686.7	692.8	698.3	702.0	705.0
37.5°	644.0	646.4	649.5	653.7	660.4	662.9	665.3	670.8	676.3	680.0	684.9
40°	620.7	621.3	625.0	631.1	636.6	638.5	642.1	648.8	653.1	658.0	661.1
42.5°	595.1	595.7	599.4	605.5	611.0	614.6	618.3	624.4	629.3	634.2	638.5
45°	567.6	569.4	573.1	579.2	584.7	589.0	592.0	598.7	604.2	608.5	614.0
47.5°	538.3	540.7	545.0	551.1	557.2	561.5	564.5	570.6	577.4	582.2	587.1
50°	509.5	512.6	516.3	523.0	529.1	533.4	535.8	542.5	548.6	554.8	560.3
52.5°	479.0	481.4	486.3	493.0	499.2	503.4	505.9	513.8	520.5	525.4	530.3
55°	447.8	450.3	455.2	461.3	468.6	471.7	475.3	483.3	489.4	495.5	501.0
57.5°	414.8	417.9	422.8	429.5	436.2	439.3	442.9	450.3	458.2	463.7	468.6
60°	381.2	383.1	388.0	395.9	402.0	405.7	410.0	416.7	424.6	430.7	437.4
62.5°	347.0	348.9	353.7	361.7	369.0	371.5	376.4	384.3	390.4	398.3	403.2
65°	311.6	314.0	318.9	324.4	333.6	337.3	340.9	348.9	355.6	362.3	368.4
67.5°	274.3	275.5	282.9	289.6	295.7	301.2	305.5	313.4	320.8	328.1	335.4
70°	235.2	238.3	244.4	252.3	259.7	264.5	267.6	276.8	284.7	293.9	300.0
72.5°	198.0	202.2	208.3	215.1	222.4	228.5	232.2	240.1	248.1	256.0	263.3
75°	159.5	164.3	171.1	178.4	186.3	190.6	196.7	204.7	212.6	219.9	226.7
77.5°	123.4	126.5	135.0	142.4	152.1	155.8	159.5	168.6	176.6	184.5	192.5
80°	88.0	91.6	99.0	107.5	116.7	120.4	125.2	133.8	142.4	150.3	157.6
82.5°	56.8	60.5	66.6	75.1	84.3	88.6	93.5	102.0	111.2	119.1	126.5
85°	29.9	33.0	39.7	48.3	57.4	62.3	66.0	75.8	83.1	92.9	99.6
87.5°	11.0	13.4	19.6	29.3	37.9	43.4	47.0	56.2	64.8	72.7	80.6
90°	0.6	4.3	11.0	19.6	28.7	33.0	37.9	47.0	55.6	63.5	70.9
92.5°	0.0	3.1	9.8	17.7	26.9	31.8	36.0	44.6	53.2	61.1	68.4
95°	0.6	3.1	9.2	17.1	26.3	30.5	35.4	44.0	51.9	59.9	67.2
97.5°	0.0	2.4	8.6	16.5	25.0	29.9	34.2	42.8	51.3	58.7	66.0
100°	0.6	2.4	7.9	15.9	24.4	28.7	33.0	41.5	50.1	57.4	64.8
102.5°	0.0	2.4	7.9	15.3	23.8	28.1	32.4	40.3	48.3	56.2	62.9
105°	0.6	1.8	7.3	14.7	22.6	26.9	31.2	39.1	47.0	54.4	61.7
107.5°	0.0	1.8	6.7	14.1	22.0	25.7	29.9	37.9	45.8	53.2	59.9
110°	0.6	1.8	6.7	13.4	20.8	25.0	28.7	36.7	44.0	51.3	58.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	1.2	6.1	12.8	20.2	23.8	27.5	35.4	42.8	49.5	56.2
115°	0.6	1.2	5.5	12.2	18.9	22.6	26.3	33.6	40.9	47.7	53.8
117.5°	0.6	1.2	5.5	11.0	18.3	21.4	25.0	32.4	39.1	45.8	51.9
120°	0.6	1.2	4.9	10.4	17.1	20.2	23.8	30.5	37.3	44.0	49.5
122.5°	0.6	0.6	4.3	9.8	15.9	19.6	22.6	29.3	35.4	41.5	47.7
125°	0.6	0.6	3.7	9.2	15.3	18.3	21.4	27.5	33.6	39.7	45.2
127.5°	0.6	0.6	3.7	8.6	14.1	17.1	20.2	25.7	31.8	37.3	42.8
130°	0.6	0.6	3.1	7.3	12.8	15.9	18.3	24.4	29.9	35.4	40.3
132.5°	0.6	0.6	2.4	6.7	11.6	14.7	17.1	22.6	28.1	33.0	37.9
135°	0.6	0.6	2.4	6.1	11.0	13.4	15.9	20.8	25.7	30.5	35.4
137.5°	0.6	0.6	1.8	4.9	9.2	11.6	14.1	18.9	23.8	28.1	32.4
140°	0.6	0.6	1.2	4.3	7.9	10.4	12.8	17.1	22.0	26.3	29.9
142.5°	0.6	0.6	1.2	3.7	7.3	9.2	11.0	15.3	19.6	23.8	27.5
145°	0.6	0.6	1.2	3.1	6.1	7.3	9.2	12.8	17.1	20.8	24.4
147.5°	0.6	0.6	0.6	2.4	4.9	6.1	7.9	11.0	14.7	18.3	21.4
150°	0.6	0.6	0.6	1.8	4.3	5.5	6.7	9.2	12.2	15.3	18.3
152.5°	0.6	0.6	0.6	1.2	3.1	4.3	5.5	7.9	10.4	12.8	15.3
155°	0.6	0.6	0.6	1.2	2.4	3.1	4.3	6.1	8.6	10.4	12.8
157.5°	0.6	0.6	0.6	1.2	1.8	2.4	3.1	4.9	6.1	7.9	10.4
160°	0.6	0.6	0.6	0.6	1.2	1.8	2.4	3.1	4.9	6.1	7.3
162.5°	1.2	1.2	0.6	0.6	1.2	1.2	1.8	2.4	3.1	4.3	5.5
165°	1.2	1.2	1.2	0.6	0.6	0.6	1.2	1.8	2.4	3.1	3.7
167.5°	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6	1.2	1.8	1.8
170°	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	1.2
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P241573

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1	843.1
2.5°	844.3	844.3	844.3	844.3	844.3	844.3	844.3	844.3	843.7	843.7
5°	841.9	841.9	842.5	843.1	843.1	843.1	843.1	842.5	842.5	842.5
7.5°	839.5	840.7	841.3	841.3	841.3	841.3	841.9	841.9	841.3	841.3
10°	835.8	836.4	837.6	838.2	838.2	838.2	838.2	838.8	838.8	838.8
12.5°	830.9	831.5	832.1	833.4	833.4	834.0	834.6	834.0	835.2	834.6
15°	823.0	824.8	826.0	826.6	827.2	827.2	827.9	828.5	828.5	828.5
17.5°	814.4	815.6	817.5	818.7	818.7	819.9	819.3	820.5	821.1	820.5
20°	803.4	805.2	807.1	808.3	809.5	809.5	810.1	810.7	810.7	810.7
22.5°	791.8	793.6	795.5	797.3	797.9	798.5	799.7	800.4	800.4	801.0
25°	777.8	780.2	782.6	783.9	784.5	785.7	786.3	786.9	787.5	788.8
27.5°	763.1	765.5	768.0	769.8	769.8	771.6	772.9	773.5	773.5	773.5
30°	746.6	749.0	750.9	753.9	753.9	754.5	755.8	757.6	757.0	757.6
32.5°	728.3	731.3	733.8	735.0	736.8	738.0	738.0	739.9	741.1	739.9
35°	708.7	711.8	714.8	716.7	718.5	718.5	720.9	720.9	722.2	722.2
37.5°	688.6	691.0	694.1	695.9	697.7	699.5	700.8	700.8	701.4	702.0
40°	665.3	668.4	672.7	675.7	676.3	676.9	678.8	679.4	680.6	679.4
42.5°	642.1	645.8	649.5	652.5	652.5	654.3	655.6	656.8	657.4	656.8
45°	617.1	622.0	624.4	628.1	628.1	629.9	631.1	633.6	634.2	634.2
47.5°	590.8	595.1	599.4	603.0	603.0	604.9	605.5	607.3	607.9	609.7
50°	564.5	568.8	571.9	576.1	576.7	578.0	579.8	581.0	581.6	581.6
52.5°	536.4	540.1	543.8	546.8	549.3	549.3	552.3	552.9	553.5	556.0
55°	506.5	510.8	514.4	518.7	518.7	519.9	521.8	523.0	524.8	526.0
57.5°	474.7	479.0	484.5	486.3	488.8	490.0	492.4	493.0	493.7	494.9
60°	442.3	447.2	450.9	454.6	456.4	457.6	459.4	461.3	462.5	462.5
62.5°	410.0	413.0	418.5	422.8	424.0	426.5	427.7	428.9	430.1	430.7
65°	375.1	380.0	385.5	388.6	390.4	390.4	393.5	395.9	395.3	395.9
67.5°	340.3	345.8	349.5	353.7	355.6	357.4	360.5	361.1	362.9	363.5
70°	304.3	311.0	315.3	318.3	321.4	320.8	325.0	325.6	327.5	328.7
72.5°	269.4	274.3	280.4	283.5	285.3	286.5	289.0	290.8	290.8	292.0
75°	233.4	238.3	243.2	248.1	248.1	251.7	254.2	256.6	256.6	258.4
77.5°	197.3	204.7	209.6	212.6	215.1	216.9	218.7	221.8	221.2	221.8
80°	163.1	169.2	174.1	179.0	180.8	182.7	184.5	187.0	188.2	188.8
82.5°	132.0	138.1	143.6	147.9	149.7	152.1	155.2	157.0	157.6	159.5
85°	105.7	111.8	117.3	122.2	124.0	125.2	128.3	130.1	131.4	132.0
87.5°	87.4	93.5	99.0	103.3	105.1	106.9	110.0	111.8	113.6	113.6
90°	77.6	83.7	89.2	93.5	95.9	97.8	100.8	102.6	103.9	103.9
92.5°	75.1	80.6	86.1	90.4	92.9	94.7	97.1	99.0	100.8	100.8
95°	73.9	80.0	84.9	89.2	91.6	93.5	95.9	98.4	99.6	99.6
97.5°	72.7	78.8	83.7	88.0	90.4	92.3	94.7	96.5	97.8	98.4
100°	70.9	77.0	82.5	86.8	88.6	90.4	93.5	95.3	96.5	96.5
102.5°	69.6	75.1	80.6	84.9	86.8	88.6	91.0	93.5	94.1	94.7
105°	67.8	73.3	78.8	83.1	84.9	86.8	89.2	91.0	92.3	92.9
107.5°	66.0	71.5	76.4	80.6	82.5	84.3	87.4	89.2	90.4	90.4
110°	64.2	69.6	74.5	78.2	80.6	81.9	84.9	86.8	88.0	88.0



TEST NUMBER: P241573

CATALOG NUMBER: FVS8M-3-LD4-30-2LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	61.7	67.2	72.1	75.8	77.6	79.4	81.9	83.7	84.9	85.5
115°	59.9	64.8	69.6	73.3	75.1	77.0	79.4	81.3	82.5	82.5
117.5°	57.4	62.3	66.6	70.9	72.7	73.9	76.4	78.2	79.4	80.0
120°	55.0	59.9	64.2	67.8	69.6	70.9	73.3	75.1	76.4	77.0
122.5°	52.5	57.4	61.7	65.4	66.6	67.8	70.3	72.1	73.3	73.9
125°	50.1	54.4	58.7	62.3	63.5	64.8	67.2	69.0	69.6	70.3
127.5°	47.7	51.9	55.6	59.3	60.5	61.7	64.2	65.4	66.6	67.2
130°	44.6	48.9	52.5	55.6	57.4	58.7	60.5	62.3	62.9	63.5
132.5°	42.2	45.8	49.5	52.5	53.8	55.0	57.4	58.7	59.9	59.9
135°	39.1	42.8	46.4	49.5	50.7	51.9	53.8	55.0	55.6	56.2
137.5°	36.7	40.3	43.4	45.8	47.0	48.3	50.1	51.3	51.9	52.5
140°	33.6	36.7	39.7	42.2	43.4	44.6	46.4	47.7	48.3	48.3
142.5°	30.5	33.6	36.7	39.1	40.3	40.9	42.8	43.4	44.0	44.6
145°	28.1	30.5	33.0	35.4	36.7	37.3	38.5	39.7	40.3	40.3
147.5°	25.0	27.5	29.9	31.8	33.0	33.6	34.8	36.0	36.7	36.7
150°	21.4	24.4	26.3	28.1	29.3	29.9	31.2	31.8	32.4	32.4
152.5°	18.3	20.8	23.2	25.0	25.7	26.3	27.5	28.1	28.7	28.7
155°	15.3	17.1	19.6	21.4	22.0	22.6	23.2	23.8	24.4	24.4
157.5°	12.2	14.1	15.9	17.7	18.3	18.9	19.6	20.2	20.2	20.8
160°	9.2	10.4	12.2	14.1	14.7	15.3	15.9	15.9	16.5	16.5
162.5°	6.7	7.9	9.2	10.4	10.4	11.6	12.2	12.8	12.8	12.8
165°	4.3	5.5	6.1	6.7	7.3	7.9	8.6	8.6	9.2	9.2
167.5°	2.4	3.1	3.7	4.3	4.3	4.9	4.9	5.5	5.5	5.5
170°	1.2	1.2	1.8	1.8	1.8	1.8	2.4	2.4	2.4	3.1
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)